ESOTERIC

SA-10

Super Audio CD Player

SUPER AUDIO CD

COMPACT
disc
DIGITAL AUDIO

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK). NO USER-
SERVICEABLE PARTS INSIDE. REFER SERVICING TO
QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an

IMPORTANT SAFETY INSTRUCTIONS

1) Read these instructions.
2) Keep these instructions.
3) Heed all warnings.
4) Follow all instructions.
5) Do not use this apparatus near water.
6) Clean only with dry cloth.
7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11) Only use attachments/accessories specified by the manufacturer.
12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13) Unplug this apparatus during lightning storms or when unused for long periods of time.
14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION

● DO NOT REMOVE THE EXTERNAL CASES OR CABINETS TO EXPOSE THE ELECTRONICS. NO USER SERVICEABLE PARTS ARE WITHIN!

● IF YOU ARE EXPERIENCING PROBLEMS WITH THIS PRODUCT, CONTACT TEAC FOR A SERVICE REFERRAL. DO NOT USE THE PRODUCT UNTIL IT HAS BEEN REPAIRED.

● USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

GND
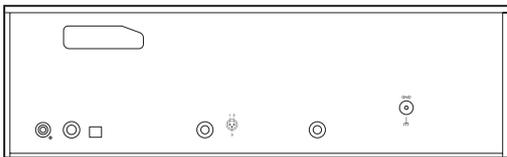
What's in the box

Please confirm that the following accessories are in the box when you open it.

> Remote control unit x 1
> Batteries (AA, R6, SUM-3) x 2
> Felt sheet x 3
> Power cord x 1
> Owner's manual x 1
> Warranty card x 1

Read this before operation

● Be careful to avoid injury when moving the unit, on account of its weight. Get someone to help you if necessary.

● To protect easily scratched furniture, you may stick the felt supplied with the unit to the feet.

● As the unit may become warm during operation, always leave sufficient space around the unit for ventilation.

● The voltage supplied to the unit should match the voltage as printed on the rear panel. If you are in any doubt regarding this matter, consult an electrician.

● Choose the installation location of your unit carefully. Avoid placing it in direct sunlight or close to a source of heat. Also avoid locations subject to vibrations and excessive dust, heat, cold or moisture.

● Do not place the unit on the amplifier/receiver.

● Do not open the cabinet as this might result in damage to the circuitry or electrical shock. If a foreign object should get into the unit, contact your dealer or service company.

● When removing the power plug from the wall outlet, always pull directly on the plug, never yank the cord.

● To keep the laser pickup clean, do not touch it, and always close the disc tray.

● Do not attempt to clean the unit with chemical solvents as this might damage the finish. Use a clean, dry cloth.

● Keep this manual in a safe place for future reference.

**DO NOT MOVE THE UNIT DURING PLAYBACK**

During playback, the disc rotates at high speed. Do NOT lift or move the unit during playback. Doing so may damage the disc or the unit.

WHEN MOVING THIS UNIT

When changing places of installation or packing the unit for moving, be sure to remove the disc and return the disc tray to its closed position in the player. Then, press the power switch to turn the power off, and disconnect the power cord. Moving this unit with the disc loaded may result in damage to this unit.

Restoring factory settings

If you have made a lot of changes to the setup, and want to restart from a known set of options, restore the unit to the factory settings as follows:
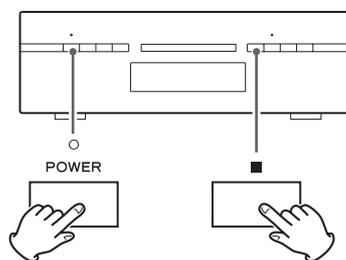
1. **Turn the unit off and wait 30 seconds or longer.**

2. **Press the POWER button while holding down the STOP button.**
   Release the STOP button when "Setup CLR" appears on the display.

   All memories are erased, and the unit returns to the factory settings.

"Super Audio CD" is a registered trademark.
"DSD" is a registered trademark.

The i.LINK logo is a trademark of Sony Corporation, registered in the U.S. and other countries.

Type of discs that can be played on this system

This unit can playback discs bearing any of the following logos:

SACD SUPER AUDIO CD	**Super Audio CD:** • Single layer, dual layer or Hybrid layer • 12cm (4.7") or 8cm (3.15") discs • Digital audio (DSD) Super Audio CDs are divided into tracks.
COMPACT disc DIGITAL AUDIO	**Audio CD:** • 12cm (4.7") or 8cm (3.15") discs • Linear PCM digital audio Audio CDs are divided into tracks.

About CD-R/CD-RW

CD-R/RW discs recorded in Audio CD format and finalized correctly are playable. But depending on the quality of the disc and/or the condition of the recording, some CD-R & CD-RW discs may not be playable.

Caution:

● If you record a disc using a personal computer, even if it is recorded in a compatible format, there are cases in which it may not play because of the settings of the application software used to create the disc. (Check with the software publisher for more detailed information.)
● Unfinalized CD-R/CD-RW discs cannot be played.

Following discs cannot be played with this unit:

• DVD, Video CD, CD-G, Data part of CD-EXTRA, PHOTO CD, CD-ROM and DVD-ROM discs
• illegally produced discs
• scratched or damaged discs
• discs that are dusty, soiled or marked with fingerprints

Warning:

If you attempt to play back such discs, there is a risk that sudden loud noise can blast over the speakers at full volume and cause damage to the speakers and your hearing.

Copy-protected discs, DualDiscs and other discs that do not conform to the CD standard may not play back correctly in this player. If you use such discs in this unit, TEAC ESOTERIC COMPANY cannot be responsible for any consequences or guarantee the quality of reproduction. If you experience problems with such non-standard discs, you should contact the producers of the disc.

● Always place the disc on the disc tray with the label side up. (Compact discs can be played or recorded only on one side.)
● To remove a disc from its storage case, press down on the center of the case and lift the disc out, holding it carefully by the edges.
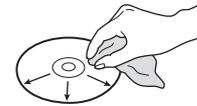
How to remove the disc   How to hold the disc

● Should the disc become dirty, wipe the surface radially (from the center hole outward towards the outer edge) with a soft, dry cloth:

● Never use such chemicals as record sprays, antistatic sprays or fluid, benzine or thinner to clean the discs. Such chemicals will do irreparable damage to the disc's plastic surface.
● Discs should be returned to their cases after use to avoid dust and scratches that could cause the laser pickup to "skip."
● Do not expose discs to direct sunlight or high humidity and temperature for extended periods. Long exposure to high temperatures will warp the disc.
● Do not play any disc that is warped, deformed or damaged. Playing such discs may cause irreparable harm to the playing mechanisms.
● CD-R and CD-RW discs are more sensitive to the effects of heat and ultraviolet rays than ordinary CDs. It is important that they are not stored in a location where direct sunlight will fall on them, and which is away from sources of heat such as radiators or heat-generating electrical devices.
● Printable discs aren't recommended, as the label side might be sticky and damage the unit.
● Do not stick papers or protective sheets on the discs and do not use any protective coating spray.
● Use a soft oil-based felt-tipped pen to write the information on the label side. Never use a ball-point or hard-tipped pen, as this may cause damage to the recorded side.
● Never use a stabilizer. Using commercially available CD stabilizers with this unit will damage the mechanisms and cause them to malfunction.
● Do not use irregular shape discs (octagonal, heart shaped, business card size, etc.). Discs of this sort can damage the unit:
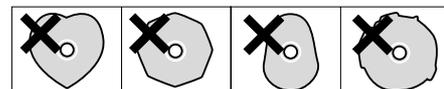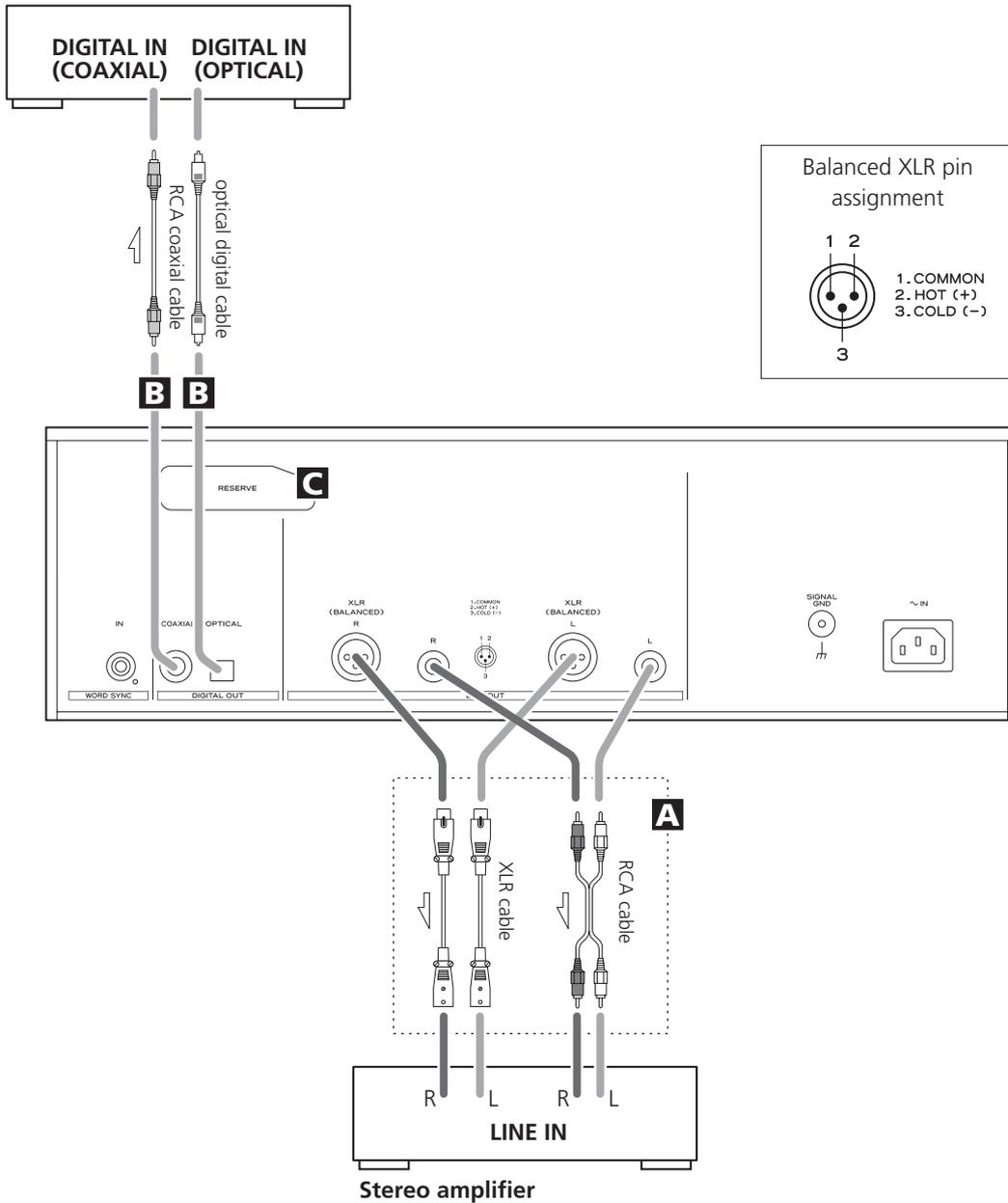
● If you are in any doubt as to the care and handling of a disc, read the precautions supplied with the disc, or contact the disc manufacturer directly.

ENGLISH

CAUTION:
- Switch off the power to all equipment before making connection.
- Read the instructions of each component you intend to use with this unit.
- Be sure to insert each plug securely. To prevent hum and noise, avoid bundling the signal interconnection cables together with the AC power cord or speaker cables.

Amplifier or digital audio device (CD recorder, MD deck, etc.)

DIGITAL IN (COAXIAL) DIGITAL IN (OPTICAL)

RCA coaxial cable optical digital cable

Balanced XLR pin assignment

1 2
1. COMMON
2. HOT (+)
3. COLD (−)
3

RESERVE

IN COAXIAL OPTICAL XLR (BALANCED) R 1.COMMON 2.HOT (+) 3.COLD (−) XLR (BALANCED) L L SIGNAL GND ~ IN

WORD SYNC DIGITAL OUT OUT

XLR cable RCA cable

R L R L
LINE IN

Stereo amplifier

A 2 channel analog audio output terminals

Use either the XLR or RCA (pin) terminals for analog stereo output.
If your amplifier has balanced XLR analog audio inputs, connect the XLR jacks on the unit to the amplifier's XLR jacks, otherwise use the RCA (pin) connections.

Use commercially available XLR or RCA audio cables.

Make sure to connect:
  white plug → white jack (L: left channel)
  red plug → red jack (R: right channel)

● When using these terminals, set "Analog Out" to "2ch" to downmix the multi-channel material to two channels (see page 21).
Note that if "Analog Out" is set to "Multi ch", only the front L/R sound of the multi-channel material will be output from these terminals.

B Digital audio output terminals

Digital audio from CD is output from these terminals.
The unit may be connected using either coaxial or optical (TOS) commercially available cables to amplifiers or digital audio devices such as CD recorders, etc.

  COAXIAL: Use RCA (pin) digital audio cable
  OPTICAL: Use optical digital audio cable (TOS)

● The optical terminal is covered by a shutter. Make sure that the cable is firmly inserted, but do not force the cable when connecting it or removing it, in order not to cause damage to the unit.

● When using these terminals, set "Digital Out" to "ON" (see page 21).

● The DIGITAL OUT terminals cannot output the digital audio from Super Audio CDs.

C Reserved slot for i.LINK (AUDIO) terminals

The i.LINK (AUDIO) terminals (4 pin x 1, 6 pin x 1) will become available after a future hardware upgrade (charged).

In addition to the digital audio from CD, the digital surround audio from Super Audio CDs can be output from the i.LINK (AUDIO) terminals. To enjoy surround sound from a Super Audio CD, connect the i.LINK (AUDIO) terminal to a suitably equipped amplifier such as AZ-1, AI-10 (upgraded), etc.

Use a commercially available S400 compatible i.LINK (IEEE1394) cable (6 pin or 4 pin).

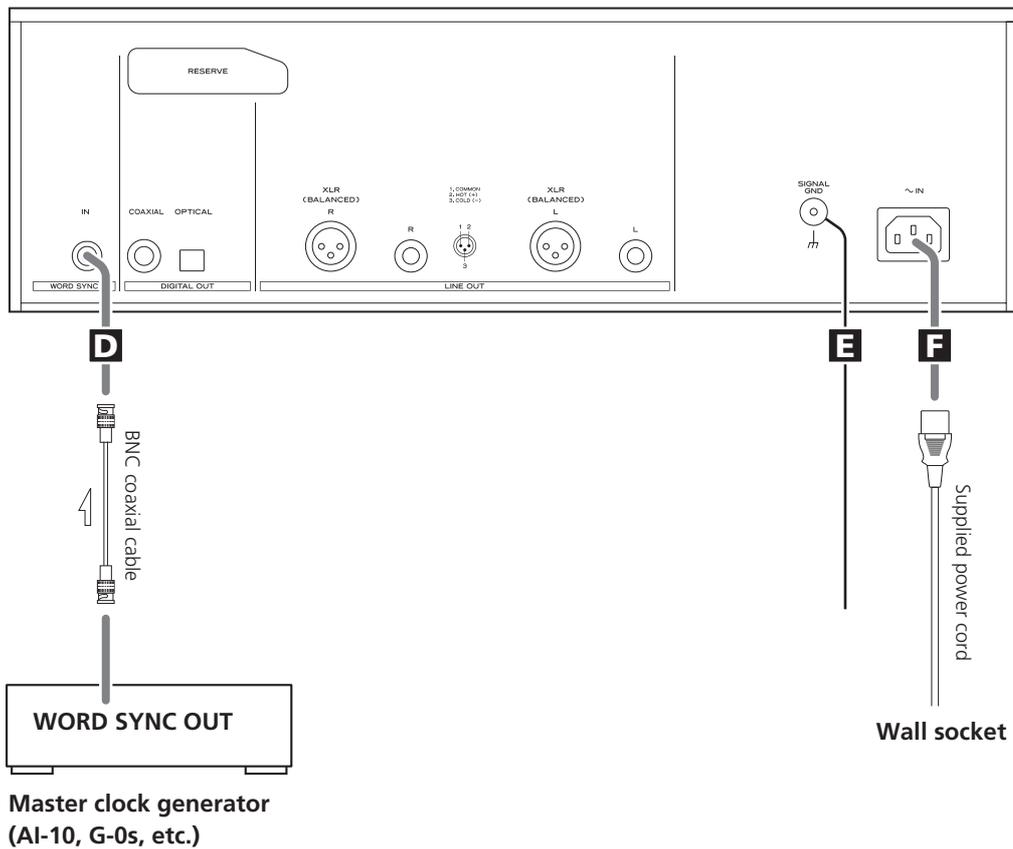> **Following settings are necessary to use the i.LINK (AUDIO) terminal:**
> ● Set "Digital Out" to "ON" (see page 21).
> ● Set the i.LINK output setting to "60958" or "PCM" (see page 23).
>
> Check the following settings if necessary:
>   Analog Out (see page 21)
>   Speaker Setup (see page 22)

RESERVE

WORD SYNC — IN — DIGITAL OUT — COAXIAL — OPTICAL — XLR (BALANCED) R — R — 1. COMMON 2. HOT (+) 3. COLD (−) — XLR (BALANCED) L — L — LINE OUT — SIGNAL GND — ~ IN

D

BNC coaxial cable

WORD SYNC OUT

Master clock generator (AI-10, G-0s, etc.)

E **F**

Supplied power cord

Wall socket

D Word sync connector

This allows the use of an externally-generated word clock connection, using a commercially available BNC coaxial cable.

Devices producing such a suitable clock signal include external D-A converters or dedicated word clock generators. Connect the SYNC OUT (or WORD OUT) of such a device to the unit.

E SIGNAL GND connection

Use a commercially available PVC-covered cord to connect the signal ground terminal on the unit to the amplifier signal ground.

● Note that this is NOT an electrical safety ground (earth).

F Power cord receptacle

After all other connections have been made, insert the supplied AC power cord into this receptacle, then connect the other end of the power cord into the wall socket.

● Ensure that your AC voltage corresponds to the voltage marked on the rear panel of the unit. Consult a qualified electrician if you are in doubt.

● Use only the supplied Esoteric power cord. Use of other power cords may result in fire or electric shock. Unplug the power cord when you are not going to use the unit for an extended period of time.

Front panel features
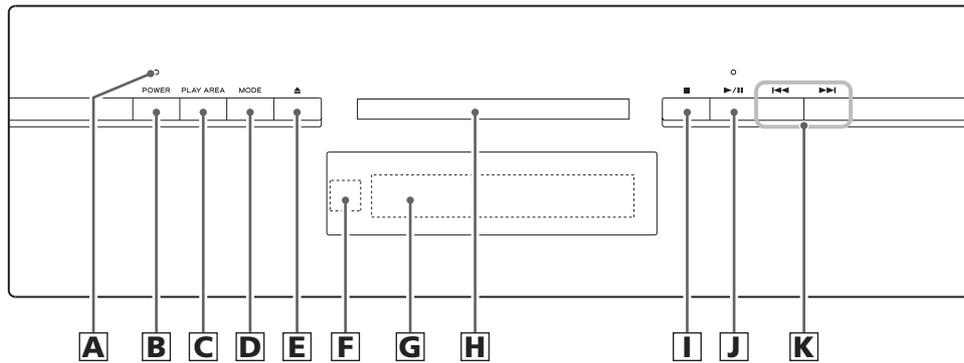
A **Power indicator**

Blue (on)
The POWER button of the main unit is ON.

Red (standby)
When the POWER button is depressed, press the STANDBY button of the remote control unit to turn the unit standby.
In the standby mode, press the ON button of the remote control unit to turn the unit ON.

Off
The POWER button of the main unit is OFF.

B **POWER**

Use this button to turn the unit on and off.

C **PLAY AREA**

When playback is stopped, use this button to select the playback area of Super Audio CDs.

D **MODE**

Use this button to change following settings:
Word sync, Digital filter, DSD

E **OPEN/CLOSE (⏏)**

Use this button to open and close the disc tray.

F **Remote control sensor**

Receives signals from the remote control unit. Point the remote control unit at this sensor when operating the remote control unit.

G **Display**

H **Disc tray**

I **STOP (■)**

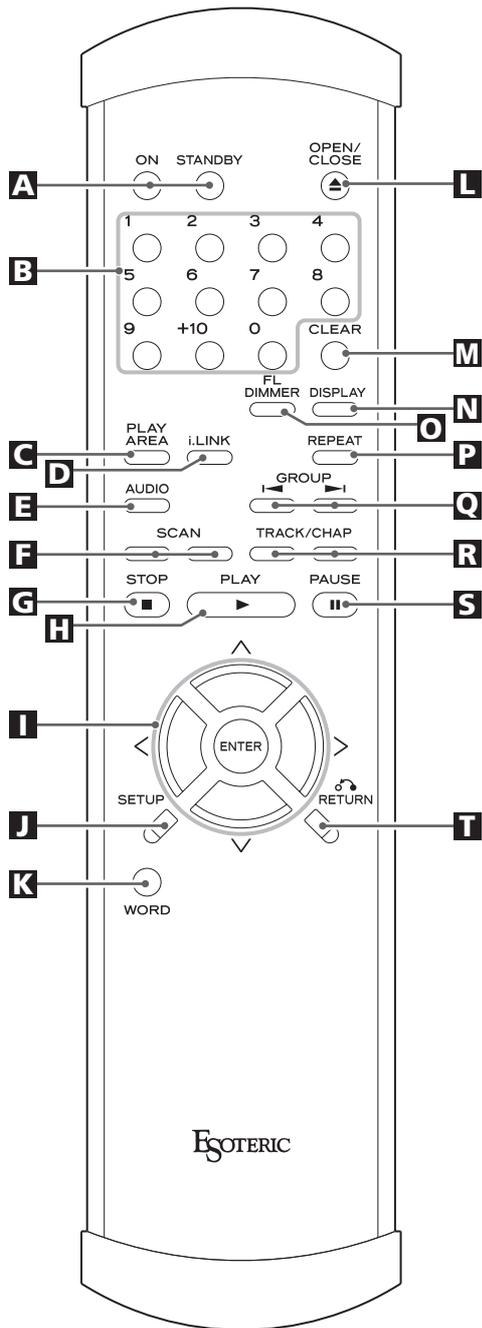Use this button to stop playback.

J **PLAY/PAUSE (▶/II)**

Use this button to start or pause playback.

K **SKIP (I◀◀ / ▶▶I)**

Use these buttons for skip operations. Pressing and holding these buttons for more than a second changes the scanning speed.

A ON/STANDBY

When the POWER button of the main unit is depressed, press the STANDBY button to turn the unit standby.
In the standby mode, press the ON button to turn the unit ON.

When you press the ON button, white buttons on the remote control unit light for several seconds.

B Number buttons

Use these for selecting tracks by number, etc.

C PLAY AREA

When playback is stopped, use this button to select the playback area of Super Audio CDs.

D i.LINK

This button is used for controlling i.LINK output and will become available after a future hardware upgrade (charged).

E AUDIO

This button doesn't work on the SA-10.

F SCAN (◄◄ / ►►)

Use these for fast scanning during playback.

G STOP

Use this to stop playback.

H PLAY

Use this to start playback.

I Cursor buttons and ENTER

Use these cursor buttons for navigation of the setup menu and the ENTER button to confirm selections.

J SETUP

Use this button to enter the setup menu where you can set up the parameters of the unit.

K **WORD**

Use this to turn on or off the word sync function.
When the word sync is on, the unit will synchronize with an external word sync source.

L **OPEN/CLOSE**

Use this button to open and close the disc tray.

M **CLEAR**

Use this button to clear entry errors, etc.

N **DISPLAY**

Use this button to change the display mode.

O **FL DIMMER**

Use this button to change the brightness of the front panel display.

P **REPEAT**

Use this button to set the repeat playback mode.

Q **GROUP**

This button doesn't work on the SA-10.

R **SKIP (I◄◄ / ►►I)**

Use these for skip operations.

S **PAUSE**

Use this to pause playback.

T **RETURN**

Use this button to go up a level in the setup menu.

Note:

To simplify explanations, instructions in this manual refer to the names of the buttons and controls on the front panel only. Associated controls on the remote control will also operate similarly.

How to insert the batteries

Remove the cover of the remote control unit with a screwdriver. After checking the polarity ($\oplus$/$\ominus$) of two AA batteries, insert the batteries, replace the cover and replace the screws.

● Take care not to pinch cables with the battery case.
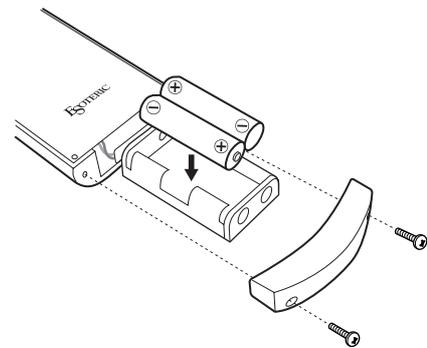
Battery Replacement

If the distance required between the remote control unit and main unit decreases, the batteries are exhausted. In this case replace the batteries with new ones.

Precautions concerning batteries

● Be sure to insert the batteries with correct positive "$\oplus$" and negative "$\ominus$" polarities.
● Use batteries of the same type. Never use different types of batteries together.
● Rechargeable or non-rechargeable batteries can be used but not mixed together. Refer to the precautions on their labels.
● When the remote control unit is not to be used for a long time (more than a month), remove the batteries from the remote control unit to prevent them from leaking. If they leak, wipe away the liquid inside the battery compartment and replace the batteries with new ones.
● Do not heat or disassemble batteries and never dispose of old batteries by throwing them in a fire.

Notes on use

● Point the remote control unit at the player's remote sensor within seven meters (23 feet) of the player. There should not be any obstacles between the player and the remote control unit.

● Do not allow direct sun or other light to shine on the remote sensor part of the player. This may cause the remote control unit to work incorrectly.

● Note that other units with remote controls may operate incorrectly because of infrared light "overspill" when you operate this remote control unit.

a Disc type indicator

Shows the type of disc currently loaded.

b REPEAT indicator

Lights when repeat play is selected

c SETUP indicator

Lights in the setup menu.

d Message area

Alphanumeric display to show times, status messages, etc.

e DOWN MIX indicator

Lights to show that a multi-channel source has been down mixed to 2 channels.

f MULTI indicator

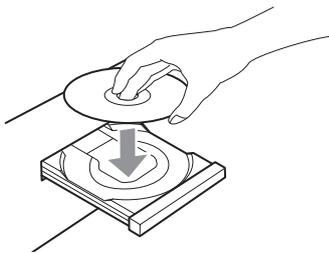Lights when "Analog Out" is set to "Multi ch".

g Channel indicators

Light to show which surround channels are currently in use.

h i.LINK indicator

After a future hardware upgrade (charged), this indicator will light when the i.LINK output is set to "60958" or "PCM".

The tray will close. Take care that you don't catch your fingers in the tray.

2 **Press the OPEN/CLOSE button (⏏) to open the tray.**
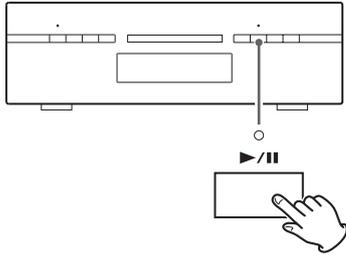
3 **Insert the disc label side up.**

● Make sure the disc is centered in the tray in order to avoid any malfunction or jamming of the tray or damage to the disc.
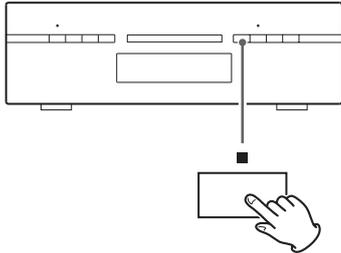
Pausing playback

►/❚❚

Press the PLAY/PAUSE button to pause playback.
Press it again to restart playback.

When using the remote control unit, press the PAUSE button to pause playback. Press the PLAY or the PAUSE button to restart playback.
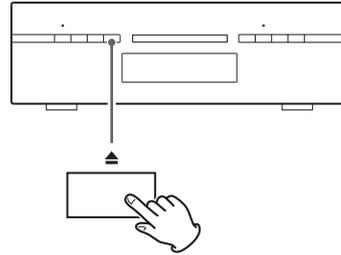
● Caution - do not leave player in the "pause" mode for extended periods of time. Damage to the player may occur.
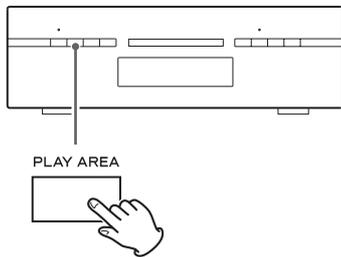
Stopping playback

During playback, press the STOP button to stop playback.

Opening and closing the tray

⏏

Pressing OPEN/CLOSE opens the tray if it is closed, and closes it if it is open. When the tray is opened during playback, it may take a few seconds before the disc is "unloaded" and the tray opens.
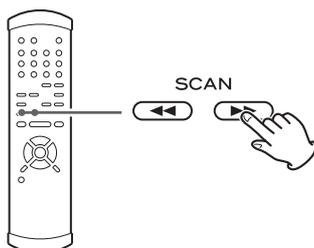
Selecting the playback area

PLAY AREA

There are two types of Super Audio CDs, regular ones that contain 2-channel stereo and multi-channel stereo and hybrid discs (two-layer discs) that contain Super Audio CD and regular CD data.

When a hybrid Super Audio CD is loaded and when the playback is stopped, press the PLAY AREA button to select a playback area.

Skipping playback

TRACK/CHAP

Press the SKIP button (I◀◀ or ▶▶I) repeatedly until the desired track is found. The selected track will be played from the beginning.

● If the I◀◀ button is pressed once during playback, playback returns to the start of the current track. If it is pressed within one second from the start of the track, playback returns to the start of the previous track (so pressing the button twice in quick succession will skip back two tracks, etc.).

● If tracks are skipped while playback is paused or stopped, playback is paused at the start of the selected track.
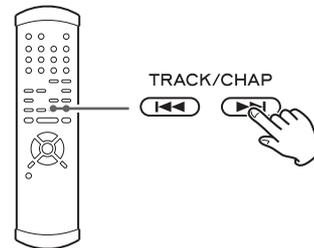
Fast scanning

SCAN

When playing back, use the SCAN button (◀◀ or ▶▶) to move backwards and forwards. Press PLAY to restart playback at normal speed at the desired location.
Repeated presses of the SCAN buttons changes the scanning speeds. There are three speeds:

Fast → Faster → Fastest → Playback at normal speed

● The blinking speed of "<" or ">" on the display shows the current scanning speed.

● You can also use the SKIP buttons of the main unit. To start scanning (or to change the scanning speed), press and hold the SKIP button for more than one second.
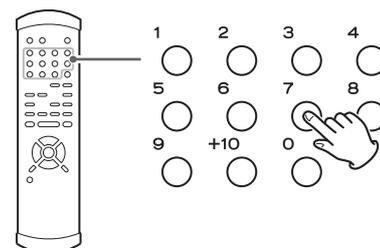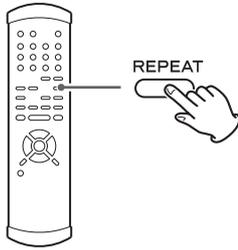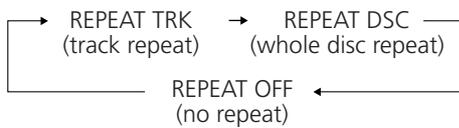
Selecting a track

Use the number button to select tracks for playback. Use the +10 button to enter the first digit of numbers greater than 9 (repeated presses show 1-, 2-, 3- etc.) and the single digit buttons (0 through 9) for the second digit, or single-digit track numbers.

Repeat mode

Use the REPEAT button to select the repeat mode for playback. Repeated presses of the REPEAT button cycle between the following options:

```
  ┌──→ REPEAT TRK  →  REPEAT DSC ──┐
  │    (track repeat)   (whole disc repeat) │
  └──────── REPEAT OFF ←───────────┘
              (no repeat)
```

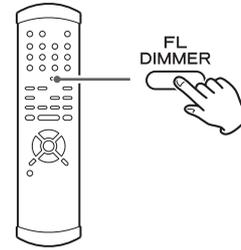● Halting playback stops the repeat mode.

Track repeat

When this is selected, the currently selected track repeats. If another track is selected during repeat playback, the newly-selected track repeats.

Disc repeat

All the tracks on the disc are repeated.

Display dimming

The display on the main unit can be dimmed to suit the environment in which you listen to music.
Use the FL DIMMER button to cycle between these settings.

FL Dimmer3:
  Full brightness

FL Dimmer2:
  Medium brightness

**FL Dimmer1:**
  Minimum brightness

OFF:
  The display and indicators are off.

● Note that the OFF setting is not memorized when the power is turned off. When the unit is switched off with the display off, and then turned on again, the display is reset to the minimum brightness (FL Dimmer1).

● In OFF mode, when you press a button such as PLAY/PAUSE, the illuminations turn temporarily on.
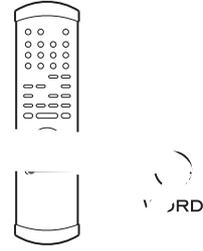
This feature is used when you want to get your whole system locked to a single sync signal (clock) by connecting this unit to the Esoteric AI-10, G-0/G-0s or other devices that are capable of outputting a sync signal (word clock).

Use the WORD button to switch between Word ON and Word OFF.

The main unit can accept and synchronize to the following frequencies received from external devices:
            44.1kHz, 88.2kHz, 176.4kHz
This unit also accepts a Universal Clock frequency of 100 kHz.

● It takes several seconds for the unit to detect and lock to an external clock.

● Make WORD SYNC connections before powering on the unit. If no valid word sync signal is received, the display shows "No Word!".

ENGLISH
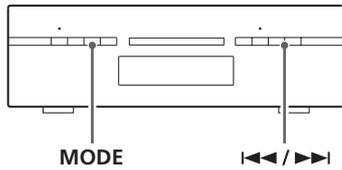
MODE   **|◀◀ / ▶▶|**

1 Repeatedly press the MODE button to select the menu item to be changed.

MODE

```
  ┌→ WORD →  DF  →  DSD ─┐
  │                       │
  └──── (normal display) ←┘
```
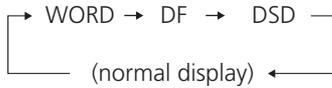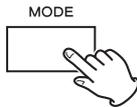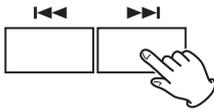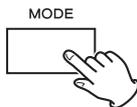
● If you leave the unit idle for 10 seconds, the setting mode will be cancelled.

2 Use the SKIP buttons (|◀◀ / ▶▶|) to select the options within the menu item.

|◀◀   ▶▶|

3 Repeatedly press the MODE button until the display returns normal (or leave the unit idle for 10 seconds) to exit the setup mode.

MODE

Pressing the STOP button also finishes the setup mode.

● Switching off the power without exiting the setup mode may cause problems. Do not turn the unit off.

● Settings are stored even when power is turned off and the unit is unplugged. If left unplugged for an extended period, the settings may be lost.

Available menu item and options

WORD

Turns on or off the word sync function.
The WORD button of the remote control unit provides the same function. See page 17 for details.

DF (digital filter)

Selects the characteristic of the FIR digital filter. Choose either "Wide" or "Narrow".

Wide
This filter has a slow roll-off characteristic and provides a smooth immersive sound.

Narrow
This filter has a sharp roll-off characteristic and provides deep, well-defined sound.

DSD

Select "Normal (factory default)" to output DSD after processing and "Direct" to output the audio signal without running it through the processor.

The analog level in the Direct mode is 3 dB lower than in the Normal mode.

(i.LINK)

After a future hardware upgrade (charged), the i.LINK output setting will be added to this section.

● The i.LINK button of the remote control unit provides the same function. See page 23 for details.

(Normal display)

Exit the setting mode.
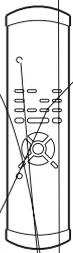
Settings (Setup Menu Chart)

AudioSetup ⟷ GeneralSet

Analog Out ⟷ options

DigitalOut ⟷ options

CD Direct ⟷ options

SP Setup ⟷ SP Size ⟷ L/R Size ⟷ options

C Size ⟷ options

SR/SL Size ⟷ options

SW ON/OFF ⟷ options

Distance ⟷ L/R *.*m ⟷ options

C *.*m ⟷ options

SR/SL *.*m ⟷ options

SP Level ⟷ LR ***.*dB ⟷ options

C ***.*dB ⟷ options

SR ***.*-dB ⟷ options

SL ***.*dB ⟷ options

SW ***.*dB ⟷ options

Test Start

Test Tone ⟷ options

Options in broken lines have no effect at the moment. Leave them as they are (factory settings).

They concern the i.LINK (AUDIO) terminals, and will have effect only after a future hardware upgrade (charged).

Note that "Distance" have no effect on the SA-10 even after a hardware upgrade.

Analog output settings (Analog Out)

When an option marked with ">" is displayed, use the up or down cursor buttons to change the setting, and press the ENTER button to confirm the entry.

Select "2ch" to output 2-channel audio from the LINE OUT terminals.
If multi-channel program material is played, the multi-channel material will be downmixed to two channels and the DOWN MIX indicator will light on the display.

● Note that if "Multi ch" is selected, only the front L/R sound of the multi-channel material will be output from the LINE OUT terminals.

> **The i.LINK (AUDIO) terminals will become available after a future hardware upgrade (charged). If the i.LINK (AUDIO) terminal is connected to an amplifier:**
> Select "2ch" to output 2-channel audio from the i.LINK (AUDIO) terminals.
>
> Select "Multi ch" to output 5.1-channel surround sound from the i.LINK (AUDIO) terminals.
>
> ● Speakers should be set up properly for multi-channel use. See page 22 for details.
> ● Note that the audio volume changes when the mode is changed between 2-channel to multi-channel.

Digital output settings (DigitalOut)

When an option marked with ">" is displayed, use the up or down cursor buttons to change the setting, and press the ENTER button to confirm the entry.

ON
Audio is output from the DIGITAL OUT and the i.LINK (AUDIO)* terminals.

OFF
Audio is not output from the DIGITAL OUT and the i.LINK (AUDIO)* terminals. If you are not using these terminals, we suggest that you use this OFF setting to reduce influence on the analog sound.

*: The i.LINK (AUDIO) terminals will become available after a future hardware upgrade (charged).

CD Direct

When an option marked with ">" is displayed, use the up or down cursor buttons to change the setting, and press the ENTER button to confirm the entry.

This setting has no effect on Super Audio CDs.

Direct
This setting bypasses unnecessary circuitry and provides better sound quality when listening to audio CDs.

Normal
Select "Normal" only when the i.LINK (AUDIO)* terminal is connected to an amplifier, and when the speakers are set up properly.

*: The i.LINK (AUDIO) terminals will become available after a future hardware upgrade (charged).

ENGLISH

This setup has no effect at the moment. Leave this setup as it is (factory settings)
When the SA-10 is updated in the future, it will have an effect on the sound output from the i.LINK (AUDIO) terminals.

Use these speaker setup menus when the i.LINK (AUDIO) terminal is connected to a surround sound amplifier, and when you don't use the speaker menus of the amplifier.
There is no need for this setup when not using the i.LINK (AUDIO) terminal, or when you use the speaker menus of the amplifier. In this case, leave this setup as it is (factory settings).

The speaker setup has effects on the sound output from the i.LINK (AUDIO) terminals when "Analog Out" is set to "Multi ch".
- When "Analog Out" is set to "2ch", the settings made here are ignored.
- When "CD Direct" is set to "Direct", the settings made here are ignored during playback of a CD.

Speaker Size (SP Size)

Select the size (Large or Small) independently for the L/R (front pair of speakers), the C (center speaker) and the SR/SL (surround pair of speakers). Turn the subwoofer (SW) ON or OFF (if you have no subwoofer).

Large
Select this when the connected speakers can fully reproduce bass frequencies.

Small
Select this when the connected speakers are rather small and cannot reproduce bass frequencies.
When this setting is selected, bass frequencies are output from the subwoofer (if no subwoofer is connected, from the front speakers).

OFF
Select this when no speaker is connected. The sound is output from the front (or surround) speakers.
- When the front speaker is set to "Small", the subwoofer is set to "ON" automatically. You cannot set the subwoofer "OFF".

ON (subwoofer only)
Select this when a powered subwoofer is connected.

- For the center and surround pair options, if these speakers are not physically present, you can select OFF to prevent any output from those channels (you cannot turn off the front L/R pair). Any speakers turned off will down mix to the other enabled channels.

- Turning downmix on and off may affect the overall volume.

- If necessary, adjust the level of subwoofer using the volume control of its own or the Speaker level setup.

Speaker levels (SP Level)

Use this to set the relative levels of the speakers. You can set the L/R pair together, and the center, and surround rear pair independently, as well as the subwoofer. The maximum value you can set here is 0dB and the minimum is −12dB, with settings made in 0.5dB increments. The default setting is each speaker channel set to 0dB.

1. **When you are ready to start, display "Test Start" and press the ENTER button.**
   The unit outputs test tone from each channel in turn at the specified level for each channel.

- Test tone at very high levels may not be good for your speakers. Make sure the level of your system is turned down to a reasonable level before carrying out this operation.

- Test tone from subwoofer may be nearly inaudible. Check the level of subwoofer using source material containing low frequency sound.

- The unit won't output test tone when a Super Audio CD is (or had been) loaded. In this case, remove the disc, turn the unit off and on, and try again.

- The unit won't output test tone when "i.LINK" is set to "60958". Select "PCM" to output test tone (see page 23).

2. **Adjust the levels and continue using the test tone as necessary until you are happy with the balance.**

Test tone length (Test tone)

This represents the length of time that the test tone is output from each speaker when Test Start is selected.

Select "Test Tone", press the right cursor button, choose between 2, 5 and 10 seconds using the up or down cursor buttons, and press the ENTER button to confirm the entry.

i.LINK Output Setting

The i.LINK (AUDIO) terminals will become available after a future hardware upgrade (charged).

When the i.LINK (AUDIO) terminal is connected to an amplifier or a D/A converter, select a proper i.LINK output setting.
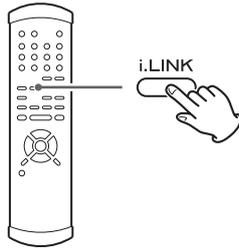
Press the i.LINK button.
Each time the i.LINK button is pressed, the output setting changes.

When using the i.LINK terminal, select "60958" or "PCM", and set "Digital Out" to "ON" (see page 21).

60958

DSD signal is output during playback of a Super Audio CD. The digital signal in IEC60958 format is output during playback of a CD.

PCM

DSD signal is output during playback of a Super Audio CD. Linear PCM digital signal is output during playback of a CD.

● Some amplifiers may regard this signal as DVD-Audio.

OFF

Select this when you don't use the i.LINK (AUDIO) terminal. No signal is output from the i.LINK (AUDIO) terminal.

● There is no difference between 60958 and PCM as far as Super Audio CD playback is concerned.

● In case you experience any problem with the audio output, read the instructions of the connected component to check the adaptable format.

● If the component connected via the i.LINK terminal is compatible with the flow rate control, the connected component will work in the flow rate control mode.

Troubleshooting (1)

In case you experience any problem with this unit, please take the time to look through this chart and see if you can solve the problem yourself before you call your dealer.

General

No power
➡ Check the connection to the AC power supply. Check and make sure the AC source is not a switched outlet and that, if it is, the switch is turned on. Make sure there is power to the AC outlet by plugging another item such as a lamp or fan.
➡ Press the POWER button of the main unit to turn it on.

Remote control doesn't work.
➡ Press the POWER button of the main unit to turn it on.
➡ If the batteries are dead, change the batteries.
➡ Use remote control unit within the range (7m/23ft) and point at the front panel.
➡ Clear obstacles between the remote control unit and the main unit.
➡ If a strong light is near the unit, turn it off.

Other units with remote controls operate incorrectly.
➡ Note that other units with remote controls may operate incorrectly because of infrared light "overspill" when you operate the remote control unit.

Severe hum or noise is heard.
➡ Place the unit as far away from a TV as possible.
➡ Make sure the line cords and speaker cables are as far away from the AC supply as possible.

Will not play.
➡ Reload the disc with the label side UP.
➡ This unit cannot play such discs as CD-ROMs. Use a playable disc (see page 5).
➡ If the disc is dirty, clean the surface of the disc.
➡ A blank disc has been loaded. Load a prerecorded disc.
➡ If the unit is condensed, leave the unit for one or two hours with the power turned on (see page 24).

Buttons don't work.
➡ If another operation is still in process, wait a moment and try again.

There is no sound or only a very low-level sound is heard.
➡ Check that the amplifier and speakers are connected securely.
➡ Check the operation of the amplifier.
➡ Check the audio output setting (see page 21).
➡ When the amplifier is connected via the DIGITAL OUT or the i.LINK (AUDIO) terminal, set the Digital Out setting to "ON" (see page 21).
➡ Digital audio from a Super Audio CD cannot be output from the DIGITAL OUT (OPTICAL or COAXIAL) terminals.
➡ The sound is muted during pause. Press the PLAY button to resume normal playback.

Digital audio recording is not possible on another device
➡ Copy-prohibit material cannot be copied digitally.

Noticeable difference in CD and Super Audio CD's volume.
➡ That is because CDs and Super Audio CDs use different recording methods.

Word Sync

The display shows "No Word!"
➡ The word sync mode is selected, but there is no clock source. Turn the word sync mode off (see page 17).
➡ No word clock is being received. Check cables, connections, and settings of the clock generator.

The display shows "WRD UNLCK!"
➡ Invalid word sync signal is received. Check the setting of the clock generator.

i.LINK (AUDIO) terminal

The i.LINK (AUDIO) terminals will become available after a future hardware upgrade (charged).

No multi-channel audio output
➡ Super Audio CDs may have more than one playback area, not all of which contain multi-channel audio data. Choose another playback area (see page 15).
➡ Set "Analog Out" to "Multi ch" (see page 21).
➡ Change the speaker configuration if necessary (see page 22).

Overall volume is low, or balance between speakers is strange
➡ A speaker's level (or that of a pair of speakers) has been set up too low or too high in the speaker setup (see page 22). Correct the levels.
➡ When configuring speaker sizes, making "small" and "off" settings on speakers other than the subwoofer can affect the subwoofer volume. Adjust the level on the subwoofer itself (see page 22).

If normal operation cannot be obtained, unplug the power cord from the outlet and plug it again. This resets the internal micro-computer which can be disturbed during electrical storms, power interruptions, et cetera.

Beware of condensation

When the unit (or a disc) is moved from a cold to a warm place, or used after a sudden temperature change, there is a danger of condensation; vapor in the air could condense on the internal mechanism, making correct operation impossible. To prevent this, or if this occurs, leave the unit turned on for one or two hours. Then the unit will stabilize at the temperature of its surroundings.

Maintenance

If the surface of the unit gets dirty, wipe with a soft cloth or use diluted neutral cleaning liquid. Be sure to remove any fluid completely. Do not use thinner, benzine or alcohol as they may damage the surface of the unit.

The i.LINK (AUDIO) terminals will become available after a future hardware upgrade (charged).

The i.LINK is also known as IEEE 1394, an international specification.

By connecting an i.LINK (AUDIO)-capable device to the i.LINK (AUDIO) terminal on this unit using an i.LINK cable, you can transmit Super Audio CD multi-channel signals that could not be transmitted but in analog format in the past can be transmitted in its original digital format, in addition to the capability of transmitting 2-ch linear PCM data.

If you have multiple i.LINK-capable devices, you can connect them through other devices to transmit data between them, so you don't need to be concerned with the order of connection.

Copyright protection system DTCP

To play back audio sounds recorded on Super Audio CD using i.LINK, both the player and the D/A converter need to be compliant to the copyright protection system DTCP (Digital Transmission Content Protection).

This unit is DTCP compliant.

Data transfer rate

There are three transfer rates: 100 Mbps (S100), 200 Mbps (S200), and 400 Mbps (S400). This unit is capable of transferring data at a maximum 400Mbps.

For connection to an i.LINK-capable device, use a commercially available S400-compliant i.LINK cable (6-pin or 4-pin).

When connecting multiple i.LINK-capable devices, avoid connecting a device having a slow transfer rate between devices having high transfer rates since this reduces the transfer rate of the whole system. Connect devices having high transfer rates towards the source as far "up-stream" as possible.

NOTES

● Among the i.LINK formats there are "MPEG-2 TS" for BS digital sources and "DV" for digital video for DVD recorders, as well as the "i.LINK (AUDIO)" (A&M Protocol). Never connect devices that are not compatible with i.LINK (AUDIO) to this unit. If you do, this unit and other components may not operate normally and may also become damaged.

● In the process of data transfer, avoid plugging/unplugging the i.LINK cables in use or switch on/off the power.

● Among i.LINK-capable devices, there are some that, if not turned on, are not capable of relaying data.

● Some i.LINK-capable devices will not respond to this unit's command. This is normal and is due to incompatibility among i.LINK devices.

● The receiving device may not support the output modes of this unit. Read through the instruction manual of devices you want to connect before making any connections.
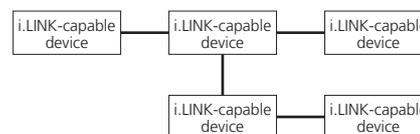
How to connect multiple i.LINK-capable devices

Daisy chain connection

You can daisy chain up to 17 devices including this unit.
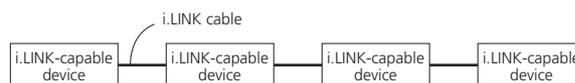
Connection in tree structure

If you are using a device having three or more i.LINK connectors, you may want to branch out the connections. This way of connection allows you to connect up to 17 devices including this unit.

Your system does not work if data is fed back to the output device. Be careful not to create a loop.
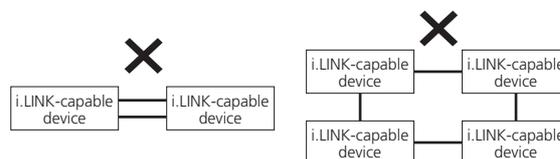
The i.LINK interface of this unit is designed in accordance with the following specifications:

1) IEEE Std 1394a-2000, Standard for a High Performance Serial Bus
2) Audio and Music Data Transmission Protocol 2.0

This unit is compliant with IEC 60958 bitstream, DVD-Audio, Super Audio CD in the AM824 sequence adaptation layers of this protocol.

Specifications

General

System . . . . Super Audio CD, CD

Power supply
  Europe model . . . . AC 230 V, 50 Hz
  U.S.A./Canada model. . . . . AC 120 V, 60 Hz
  Korea model . . . . AC 220 V, 60 Hz

Power consumption. . . . . 18 W

Weight . . . . 12.5 kg (27 9/16 lb)
External dimensions (W x H x D) . . . . 442 x 149 x 353 mm
(17 3/8" x 5 7/8" x 13 7/8")

Operating temperature. +5℃ - +35℃
Operating humidity . . . . 5% to 85% (no condensation)
Storage temperature. . . . . –20℃ - +55℃

Audio output (Analog Audio)

Jacks . . . . XLR jacks (2 channel) x 1
RCA jacks (2 channel) x 1

Maximum Output level (1 kHz, full scale)
XLR: 2.2 Vrms ±0.1 V/10 kΩ
RCA: 2.2 Vrms ±0.1 V/10 kΩ

Frequency response
5Hz - 50 kHz (SA-CD, DSD setting: Normal)
5Hz - 80 kHz (SA-CD, DSD setting: Direct)

Signal-to-Noise Ratio (S/N). . . . . 130 dB
Dynamic range . . . . 107 dB
Total harmonic distortion. 0.001%

Audio output (Digital Audio)

OPTICAL . . . . Optical digital jack x 1, –15 to –21 dBm
COAXIAL . . . . RCA jack x 1, 0.5 Vp-p/75 Ω

The i.LINK (AUDIO) terminals (4 pin x 1, 6 pin x 1) will become available after a future hardware upgrade (charged).

Word Synchronization input format

Jack. . . . . BNC
Input level. . . . . TTL level/75 Ω

The SA-10 can accept and synchronize to the following frequencies received from external devices (rectangular wave):
44.1kHz, 88.2kHz, 100kHz, 176.4kHz

Accessories

Power cord x 1
Remote Control Unit (RC-1089) x 1
Batteries (AA, R6 or SUM-3) x 2
Felt x 3
Warranty card x 1
Owner's manual x 1

- Design and specifications are subject to change without notice.
- Weight and dimensions are approximate.
- Illustrations may differ slightly from production models.